

# MACROECONOMICS IN ONE POWERPOINT

MEASURING THE ECONOMY- GDP  
ASSESSING THE ECONOMY- STATISTICS  
BUSINESS CYCLES  
DEFICITS/SURPLUSES AND DEBT  
What can and should the government do?  
Fiscal and Monetary Policy

- GROSS DOMESTIC PRODUCT
  - MEASUREMENT OF THE TOTAL OUTPUT OF THE ECONOMY IN A GIVEN YEAR
  - CURRENT VALUE approx \$17 Trillion (nominal)

# Formula

- CONSUMPTION + INVESTMENT +  
GOVERNMENT SPENDING +  
(EXPORTS-IMPORTS)

# CONSUMPTION

- 65-70% OF GDP
- “RECORDED” (ON THE BOOKS) SALE OF ALL *FINAL* GOODS AND SERVICES
  - DOESN'T INCLUDE ILLEGAL TRANSACTIONS
  - RESALE OF GOODS
  - NO VALUE JUDGMENT

# INVESTMENT

- 10-15%
- BUSINESS INVESTMENT
  - *NOT STOCK!!!!*
- NEW PLANTS, MACHINERY,
  - ITEMS USED TO PRODUCE A GOOD OR SERVICE
- INVENTORY IS INCLUDED

# GOVERNMENT SPENDING

- 10-15 %
- ALL GOVERNMENT SPENDING, BUT NOT TRANSFER PAYMENTS
  - FEDERAL (WASHINGTON D.C)
  - STATE (HARTFORD)
  - LOCAL (DARIEN)
- GOOD TIMES GOVERNMENT SPENDING LOWER THAN IN BAD TIMES

# EXPORTS & IMPORTS

- APPROX 5%
- GOODS AND SERVICE SOLD ABROAD  
(EXPORT)
- GOODS AND SERVICE FROM ABROAD  
PURCHASED IN THE US.

# Alternative way to measure GDP

- Income approach
  - All money earned in a given year
  - Profits
  - Income
  - Dividends
  - Rental income
- Expenditure GDP  $(C+I+G + (X-M)) = \text{Income GDP}$  (see above)



# REAL GDP

- GDP ADJUSTED TO REFLECT INFLATION OR DEFLATION
- TO COMPARE APPLES TO APPLES
- ALSO CALLED “CONSTANT” DOLLAR GDP

# NOMINAL GDP

- GDP IN CURRENT DOLLARS- NOT ADJUSTED FOR PRICE INDEX (LEVEL) CHANGES

# PRICE INDEX

- The Current Dollar (Nominal GDP) is adjusted by the Price Index. The Price Index is determined by the extent that inflation or deflation has effected the value of a Dollar (\$).
- A year – not too far off-- selected to act as the base year.
- Without any change in the value of the Dollar the Price Index is 1.00
  - A 10% increase in prices would result in a Price Index of 1.10
  - A 10% decrease in prices would result in a Price index of .90

# Adjusting- The final word

The base year GDP is

BASE YEAR GDP divided by 1.00

Real (constant dollar GDP)= Nominal  
(current dollar GDP)

Subsequent Year GDP is Nominal GDP  
divided by the New Price Index

$\text{GDP}_{\text{YR2}} / \text{price index}_{\text{yr2}}$

# IS GDP A GOOD MEASUREMENT FOR EVALUATING THE ECONOMY?

- CREATED DURING THE DEPRESSION=
  - A period with 40% decrease in GDP
- Totals recorded output
  - What transactions are not recorded?
    - How much would they affect GDP
  - What should be recorded?
    - How much would it affect GDP

# IS GDP A MEASURE OF QUALITY OF LIFE?

- GDP IS OFTEN USED AS A MEANS OF MEASURING ONE COUNTRIES OUTPUT OR WELL-BEING TO ANOTHER

# MEASURING THE ECONOMY

Labor Department and Commerce  
Departments

Bureau of Economic Statistics

GDP- Real GDP of 3-4.5% ->Good

Indicators

Leading

Coincident

Lagging

# Leading

- Where's the economy headed?
  - How to tell?
    - Construction permits
    - Average hours work in week
    - Consumer sentiment



# Coincident

- What statistics can help us understand what the economy is doing at this moment?
  - Housing Starts
  - Unemployment rate- payroll figures
  - PPI (producer Price Index)

# Lagging

- These #s should tell us how bad the economy was
  - Inflation – Consumer Price Index
  - Prime rate charged by banks
  - Duration of unemployment
  - Credit to income ratios

# Business Cycles

- Expansion- Peak-
  - Positive aspect—GROWTH-Bigger pie to share, possible Budget Surplus!
  - Negative→Risk of inflation
- Recession- Trough
  - Positive?-Not many, causes businesses to streamline->become more efficient
    - » Low interest rates
  - Negative->loads->Unemployment, lower incomes, social ills- **BIG DEFICITS**
- As per R. Reagan- the Difference btw Recession and Depression?
  - If my neighbor loses his/her job->Recession
  - If I lose my job->Depression

# Budget surplus/deficit

- Applies to Government Spending and Revenue
- Revenue-
  - National level- Primarily income tax
    - Good times, revenue up, bad times sinks
      - **Progressive Tax** magnifies good and bad times
    - Last year—as % of economy lowest on record- 14.8% of economy

# Spending

- Government purchases and expenditures
  - Expansion-go down? Maybe?
  - Recession- sky rocketSSSSS
  - COUNTERCYCLICAL POLICY-
    - Keynesian economics- jump start the economy through government spending
      - » Stimulus etc...
    - AUTOMATIC STABILIZERS---UNEMPLOYMENT INSURANCE, WELFARE, FOOD STAMPS
    - Last year Government expenditures 25% of economy—60 year record!

# Deficits/Debt and Surplus

-Calculate Government Spending less Government Revenue

If Positive—Surplus (rare), some say bad???

If Negative- Deficit (common) some say good, unless unwieldly or if it “crowds out investment

Debt—if you regularly run deficits you’ll create Debt (debt is accumulated deficits

# US Deficit/Debt

- Post Recession 2009
  - Government expenditures HUGE
  - Government revenue- Historically incredibly low!
    - Result—HUGE DEFICITs -10%+ OF ECONOMY- 1.5 trillion dollars!!!
  - Both parties contribute to Deficit—Dems—spending side, Reps-revenue side
- Current Debt- approx. \$17 Trillion –is that big? Deficits since 1960s except under Carter and Clinton
  - 2013 Deficit \$631 Billion

# Debt/Deficits and servicing

- Paying off debt-> servicing the debt
- Government bonds!- different maturities
- Length of maturity and interest rate positively correlated.
- Bonds price determines its interest rate-yield
- \$1000 bond 2yrs- (value at the end of the term)—
- <http://www.bloomberg.com/markets/rates-bonds/government-bonds/us/>



# What should government do?

- Libertarians-NADA- Laissez-Faire—have faith it'll all work out, don't screw up the machine
- Self-Correcting? Say's Law?-19<sup>th</sup> Century
- Everyone else---something!!!
  - FISCAL POLICY- TAX AND SPEND-
  - MONETARY POLICY- MONEY SUPPLY

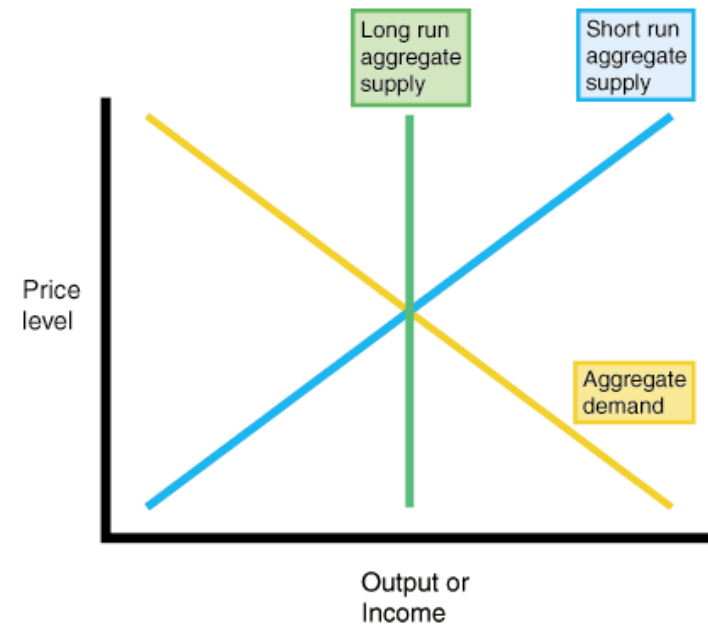
# FISCAL POLICY

- Executive Branch and Legislative Branch
  - President Proposes-
  - Congress passes bills—create laws
- Tax and Spend- incentive---pass bills that reduce taxes and spend more!
  - Executive Branch
    - Office Management Budget-(OMB)
    - Council of Economic Advisors
    - Treasury, Commerce, Labor et. Al.
  - Congress
    - Congressional Budget OfficeCBO
    - House
      - Ways and Means Committee, Budget et. Al
    - Senate
      - Finance, Commerce et. Al

# Monetary Policy

- Money, Money, and Mo Money!!!
- Who's in Charge?
  - THE FEDERAL RESERVE
  - CREATED 1913- STABILIZE THE GROWTH OF THE MONEY SUPPLY, OVERSEE AND REGULATE THE BANKING INDUSTRY
    - Fed Reserve Chairman- appointed by President- 4 year term- TODAY Janet Yellen
    - A good Federal Reserve- Is INDEPENDENT OF THE POLITICAL PROCESS!
- Regulating the Thermostat
  - Too hot-uh oh! Inflation?--slow down the economy→increase interest rates
  - Too cold-uh oh! Unemployment?----heat up the economy-> lower interest rates
  - IDEAL STABLE GROWTH WITH LOW (2%ISH infl and Full Employment (3%ish)

# Real GDP AND Price Levels



- Aggregate Demand-  $C+I+G+(x-m)$ , factors that influence those components will shift AD- AD does not equal D
- Aggregate Supply- Production- factors that influence production will shift the AS curve
- LRAS- Long Run AS- measures production capacity

- Demand Pull inflation- component of GDP on AD curve shifts out causing inflation (may also cause real GDP growth)
- Cost-Push inflation- Production costs increase- AS curve shifts up and in, inflation and decline GDP (will cause unempl to rise)- Stagflation
- Even in Stagflation the inverse relationship of unempl and inflation holds true (philips curve)

# Shifts

- Tax decrease- increases consumption (though some possible leakage-savings)
- Govt. Spending- shifts AD curve
- Growth in inventories- shifts AD curve out
- Declining resource costs- shift AS curve out.

NOTE: IF AD/AS EQUILL BEYOND LRAS  
THAN ULTIMATELY INFLATION ONLY!

# Inflation/Deflation

- Inflation->value of a \$ declines, takes more \$\$\$ to buy the same set of goods/services
- Deflation->value \$ increases
- Inflation helps people who borrow at fixed rates, hurts people who lend and people on a fixed income (deflation is opposite)
- US inflation-current 2-3%, post WW2 high was apprx. 12% in the late 1970s
- Hyperinflation- 100s of % increase

# Measuring Inflation/Deflation

- GDP -> PRICE INDEX
- Consumer inflation- CPI—basket of goods
- Producer Price Inflation- PPI (cost of resources for Producers)
- All incorporate a base year as a unit of measurement.
- Problems lie with the “basket” of goods—improvements-and bells and whistles often aren't fully included.



# Employment/Unemployment

- Labor Force -> population employed or actively looking for work (16-65)
- Labor Participation Rate-> Labor Force divided by Total # of people 16-65
- Unemployed- actively looking for work
- Problems in measurement, underemployment, part-time employment, underground economy, those who gave up looking

# Types of Unemployment

- Structural- Changes in what society produces, how it produces it, where it produces.
  - EG, auto worker unemployed in Mi. but position for high tech Google unfilled in Cal.
- Cyclical- Consistent with the business cycle- good times low-bad times high
- Frictional- EG Those who left their jobs voluntarily but don't yet have another job
  - You can always count on rough 3 to 4% unemployment

# Unemployment Rate et. Al.

- Cyclical Unemployment tied to Phillips Curve— Inflation and Unemployment inversely related.
- Current Unemployment Rate 6.7%, peak post War- early 1980s 10%. Depression?- 25%, Great Recession –9%
- Problem today- Long Term Unemployed— social ill- How to get back in the Labor Force?
- Stagflation—late 70s→ high inflation, high unemployment and slow growth (pushed out Phillips Curve)

# Other

- GDP must grow by 2.5% to keep unemployment from rising
- Entitlement programs will be a big problem in 10+ years maybe
- Slow economy will exacerbate deficit/debt problems—Keynes might say—so what
- Laffer Curve → low taxes → more govt revenue → not true at current tax levels, though taxes do cause people to change their behavior and does increase underground economy